REMARKS

This communication is in response to the Office Action dated August 10, 2007. In the Office Action, claim 1-38 were pending and were rejected. With this Amendment, claim 8 has been amended. All remaining claims are unchanged. In view of the following, reconsideration and allowance are respectfully requested.

I. Claim Rejections -35 USC § 101

On page 2, claims 1-26 are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

35 U.S.C. §101 extends the offer of patent protection to "Any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." As Congress commented in passing the statute, it was intended to cover "anything under the sun that was made by man", and the Supreme Court and the Court of Appeals for the Federal Circuit have both reiterated that observation, along with noting that the repeated usage of the word "any" applied expansive descriptions of subject matter, or was intended to emphasize that no restrictions were to be placed on patentable subject matter other than those specifically recited in 35 U.S.C. §101 (S. Rep. No. 1979, 82nd Congress, 2d Sess., 5(1952); *Diamond v. Chakrabarty*, 447 US 303, 206 U.S.P.Q. 193 (1980); *State Street Bank and Trust v. Signature Financial Corp.*, 47 U.S.P.Q. 2d 1596, 1600 (Fed. Cir. 1998) (Rich, J.)).

The restrictions on patentable subject matter that are specifically cited in §101 still define a very broad set of categories of subject matter, a requirement that the subject matter be new, and a requirement that the subject matter be useful. Of the category restrictions, the term "process" is specifically interpreted in 35 U.S.C. §100(b) to mean "process, art, or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material"; and the term "manufacture" was specifically interpreted by the U.S. Supreme Court in *Chakrabarty* according to a dictionary definition of "The production of articles for use from raw materials prepared by giving to these materials new forms, qualities, properties, or combinations, whether by hand labor or by machinery." The Court of Appeals for the Federal Circuit has also

emphasized that applicability of claimed subject matter to any one of the four named categories is the relevant issue, as opposed to distinguishing which of the categories the claimed subject matter is directed to. *State Street Bank* at 1602.

Precedential case law has identified specific examples of subject matter outside of the bounds of patentability. The Supreme Court identified three categories of subject matter that are necessarily incompatible with the four recited categories of patentable subject matter from §101, namely, laws of nature, physical or natural phenomenon, and abstract ideas, *Diamond v. Chakrabarty*.

It is in this context which the MPEP deals with data structures embodied on a computer-readable medium. "Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer." MPEP §2106.01 I. "In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." Id. "...a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and thus statutory." Id; *In re Lowry*, 32 F3d 1579; 32 U.S.P.Q. 2d 1031(Fed. Cir. 1994).

Further, in *State Street Bank*, it was stated that "[t]he transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula or calculation because it produces a useful, concrete and tangible result - a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." Thus, the court did not care that a mathematical algorithm was used, only that the end result, the share price, was a useful, concrete and tangible result.

It is submitted that independent claims 1 and 19 fall squarely within the designation of statutory subject matter, discussed above. In particular, claim 1 specifically provides "a stepwise module including instructions...to establish an interaction with a user" and "an object oriented module...for initializing an operation associated with the instructions...during the interaction" (emphasis added). Further, independent claim 19 specifically provides "a VoiceXML module having VoiceXML executable instructions that establish an interaction between the computer and a user" and "a SALT module having speech application language tags to execute instructions associated with the VoiceXML module during the interaction" (emphasis added). Applicant respectfully disagrees with the assertion on page 3 of the Office Action that the claims merely recite descriptive material that cannot exhibit any functional interrelationship with the way in which computing processes are performed as claims 1 and 19 clearly recite instructions that establish an interaction with a user. Claims 1 and 19 clearly produce useful, concrete and tangible results and fall within the realm of patentable subject matter as intended by Congress and as identified by precedential case law.

For at least these reasons, it is respectfully submitted that independent claims 1 and 19, and related dependent claims 2-18 and 20-26, are directed to patentable subject matter. Withdrawal of the rejection under §101 is respectfully requested.

II. Claim Rejections -35 USC § 102

On page 3, claims 1, 2, 4-18, 27-29 and 31-38 were rejected under 35 U.S.C. 102(e) as being anticipated by Glynn (US 2004/0019476). Of these, claims 1 and 27 are in independent form.

Independent claim 1 recites "a stepwise module including instructions executed by the computer in a defined order based on an execution algorithm to establish an interaction with a user." Claim 1 further recites "an object oriented module including at least one object having a temporal trigger for initializing an operation associated with the instructions of the stepwise module during the interaction."

Glynn discloses a system for providing voice and data interfaces between web services and end users. With reference to FIG. 1 of Glynn, end user devices 108-120 transmit voice communications to a communication interface 104. Interface 104 converts the voice communication into data communication to be processed by third party web site (126,128). Glynn discloses that the voice communications are converted into HTML or XML documents using Speech Application Language Tags (SALT) (para [0034]). The data communications are sent to web site servers. The web site servers 126, 128 can process the communications and respond by sending data communications comprising SALT commands back to interface 104. (para [0035]) Further, as disclosed in paragraph 0037, the interface 104 can provide a user with a menu of choices to facilitate communication between the end user and the web site. For example, the web site servers can send SALT documents to interface 104 which instruct interface 104 how to respond to the end user (para [0035]). Thus, Glynn discloses a system for providing voice commands from end user devices to communicate with web servers using protocols such as HTML, XML, SALT. However, Glynn does not disclose a stepwise module including instructions executed by computer to establish an interaction with a user and an object oriented module having a temporal trigger for initializing an operation associated with the instructions as claimed. Instead, Glynn simply discloses sending communications back and forth between end users and web servers using HTML, XML, SALT.

In contrast, aspects of concepts presented in the present specification relate to combining use of a stepwise module with an object oriented module. By providing this functionality, elements from separate programming languages can be combined for added flexibility. For example, as described in the specification at page 6, line 13, a temporal trigger can initiate an operation when the trigger is encountered by the execution algorithm of the stepwise module. The triggers can include various events such as an error, exception, receipt of a message, recognition and/or no recognition or combinations thereof. Examples of operations that can performed include operations such as speech recognition, DTMF recognition, audio collection, audio playback and others. For instance, as provided in dependent claim 8, the stepwise module can declare multiple fields and the object oriented module can initialize recognition events for

filling the fields with portions of speech input from a user. By embedding an object oriented module 14 within the stepwise module 12, the functionality and flexibility of the resulting application can be enhanced over what is available using simply a stepwise language such as VoiceXML.

In sum, Glynn does not disclose a module including at least one object having a temporal trigger for initializing an operation associated with instructions of a stepwise module. For at least this reason, it is submitted that independent claim 1 is neither taught nor suggested by Glynn and is in allowable form.

Independent claim 27 provides a method for providing an interactive user interface. Claim 27 recites "establishing a stepwise dialog executing instructions in a defined order, the instructions including objects for processing events associated with at least one of recognition, prompting and messaging." Claim 27 further recites "performing an object oriented operation upon encountering an object associated with the instructions to provide at least one of but not all events in the dialog associated with recognition, prompting and messaging."

As claimed, the method of claim 27 provides both a stepwise dialog and an object oriented operation for events. Claim 27 specifically recites that a stepwise dialog includes objects for processing at least one of a recognition, prompting, and messaging event and an object oriented operation is provided for at least one but not all of recognition, prompting, and messaging events in the dialog. As discussed above, Glynn discloses providing voice supported communications between end users and web site servers. Glynn discloses the use of HTML, XML, and SALT protocols. However, Glynn does not teach or suggest processing an event using a stepwise dialog and providing an event using an object oriented operation as recited in claim 27. Furthermore, Glynn makes no mention of using a stepwise module for at least one operation and using an object oriented module for other operations. Glynn teaches that SALT is used for all of prompting, recognition, and messaging. For at least these reasons, it is respectfully submitted that independent claim 27 is neither taught nor suggested by Glynn and is in allowable form.

Further, it is submitted that related dependent claims 2, 4-18, 28-29, and 31-38 are also in allowable form at least based on their relation to independent claims 1 and 27. Additionally, it is believed that at least some of these dependent claims recite features that are also neither taught nor suggested by Glynn. For example, dependent claim 2 recites automatically invoking the temporal trigger when at least one object is encountered. The cited section of Glynn (paragraph 0037) discloses providing an end user with menus and facilitating interaction between the end user and the web site based upon user selected options. The cited section of Glynn, as well as the entire Glynn reference, does not teach nor suggest an object having a temporal trigger as claimed.

Further, dependent claim 8 recites that the stepwise module declares a first field and a second field and the object oriented module initializes a recognition event to obtain speech input from a user and fill the first and second fields with portions of the speech input. The cited section of Glynn (paragraph 0037), as well as the entire Glynn reference, does not teach or suggest this feature. Instead, as stated in paragraph 0037, the interface receives a voice communication from the end user and converts the voice communication to a data communication to be sent to a web server. There is no mention of filling multiple fields with portions of a speech input.

Dependent claim 9 recites wherein a first grammar is associated with the first field and a second grammar is associated with the second field. Not only does Glynn fail to teach or suggest multiple fields, Glynn also does not disclose using grammars associated with fields as claimed. The cited section of Glynn (paragraph 0037) does not mention grammars or associating grammars with fields that are filled with portions of speech input.

Dependent claim 10 recites "wherein the object oriented module initiates a recognition event having a plurality of grammars to obtain a recognition result and associates the recognition result with one of a plurality of grammars." To illustrate, as discussed in Applicant's specification with regard to FIG. 7, in one embodiment categories and subcategories can be recognized and associated with a particular grammar such that speech input can be associated with a particular grammar and/or associated with a particular field. (See Applicant's specification, page 23, lines 5 – 29.) The cited section of Glynn (para [0037]) discloses

converting voice communications and transmitting data using SALT documents to interface 104 to provide menus to a user. Glynn does not teach or suggest associating a recognition result with one of a plurality of grammars.

Further, dependent claims 32, 33, and 34 recite features that are substantially similar to dependent claims 8, 9, 10, respectively, discussed above.

It is noted that these are examples of dependent claims that are believed to be independently patentable.

III. Claim Rejections -35 USC § 103

On page 6, claims 3, 19-26 and 30 were rejected under 35 U.S.C. 103(a) as being unpatentable over Glynn (US 2004/0019476) in view of well-known prior art.

Independent claim 19 recites "a VoiceXML module having VoiceXML executable instructions that establish an interaction between the computer and a user." Claim 19 further recites "a SALT module having speech application language tags to execute instructions associated with the VoiceXML module during the interaction."

As discussed above, Glynn discloses providing communication between an end user and web site servers by converting voice communications into data communications using HTML, XML, and SALT protocols. However, Glynn does not teach or suggest a module having instructions that establish an interaction between the computer and a user and tags to execute instructions associated with the module during the interaction. In contrast, aspects of concepts presented in the present specification relate to combining use of a VoiceXML module and a SALT module. By providing this functionality, elements from separate programming modules can be combined for added flexibility.

For at least these reasons, it is respectfully submitted that independent claim 19 is neither taught nor suggested by Glynn and is in allowable form. Further, it submitted that related dependent claims 3, 20-26, and 30 are also in allowable form at least based on their relation to independent claims 1, 19, and 27.

IV. Conclusion

For at least the reasons discussed above, Applicant respectfully submits that all pending claims, namely claims 1-38, are in condition for allowance. Reconsideration and allowance are respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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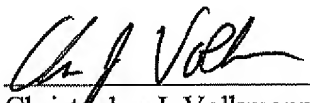
By: 

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